

DRAFT

City of Tucson, Arizona, Regional Transportation Control Center – A Multiple Jurisdiction TMC Operated through a Public-Private Partnership

11.1 Introduction

The Tucson Regional Transportation Control Center (TRTCC) combines the transportation management resources of the City of Tucson, Pima County, the State of Arizona, surrounding jurisdictions, and private industry into a single, integrated operation. Unique to the TRTCC is that the City of Tucson has entered into a public/private contract where a private company, MetroNetworks, receives exclusive rights to traffic and transit data received at the TRTCC. MetroNetworks, in turn, constructed the TRTCC at the City of Tucson transportation department facility, and provides operators to the TRTCC at no expense to the City of Tucson. The arrangement exemplifies an innovative solution that other TMCs may build upon for the continued operations of a Traffic Management Center.

11.1.1 General System Description

The TRTCC provides traveler information to motorists throughout the greater Tucson metropolitan area. Video images and data from cameras on I-10, I-19 and city streets enable operators to update radio, television, and internet reports with the latest traffic conditions information. The City of Tucson traffic signal system is operated from this facility as well as the Arizona DOT Freeway Management System during office hours.

11.1.1 General Objectives of System

The primary purposes of the TRTCC are to manage traffic and provide real-time, accurate travel and traffic information to Tucson area motorists, and to support operations of the Tucson Freeway Management System.

11.2 Design and Implementation

The first step towards a regional TMC was the procurement of a common traffic signal system for metropolitan agencies within the greater Tucson area, including the City of Tucson, Pima County, Town of Marana, and the City of South Tucson. To maximize the potential benefits of the common traffic signal system, a working group identified the need for a regional traffic management center; however, no single agency was able to financially support a regional TMC.

To address the funding for operations and maintenance of the TMC, Tucson entered into a public/private partnership with MetroNetworks, a private-sector traffic information and media company. Real time video feed, from ADOT cameras deployed on Interstate 10 and Interstate 19, and city streets continuously

feed video and data to the TRTCC. TRTCC operators, who are MetroNetworks staff, constantly monitor events, update Internet, radio and television advisories, and are able to visually confirm reported events by video or by air to determine the actual traffic impacts. The report is then broadcast over commercial radio and television, giving commuters reliable information. Traffic operations (e.g. signal system modifications) are performed by City of Tucson staff.

Geographic Area Covered

The TRTCC supports travel information dissemination throughout the entire Tucson metropolitan area, including the following geographic jurisdictions:

- City of Tucson;
- City of South Tucson;
- Town of Sahuarita;
- Pima County;
- Town of Oro Valley; and
- Town of Marana.

Participating Agencies and Stakeholders

Participating agencies and organizations include:

- City of Tucson Traffic Engineering;
- MetroNetworks;
- Arizona Department of Public Safety;
- City of South Tucson;
- Town of Sahuarita;
- Pima County;
- Town of Oro Valley;
- Town of Marana;
- University of Arizona; and
- Arizona Department of Transportation.

TMC Functions

- Monitoring of traffic information on Interstate and arterial routes
- Dissemination of traffic information to public via radio and television
- While a central signal system is located at the TMC facility, individual agencies perform their own control of traffic signal timing plans via remotely located signal system workstations. Traffic signal system is operated by City staff.
- The TRTCC provides secondary control to cameras and dynamic message signs during normal business hours. Primary control is maintained at the Arizona Department of Public Safety.

Number and Type of Field Elements

- The TRTCC central signal system control all signals.
- The TRTCC receives video images from ADOT CCTV cameras on I-10 and I-19.
- The TRTCC has secondary control of eight dynamic message signs located on Interstate-10 and Interstate-19.

11.3 Organization and Management Structure

Development of a consistent revenue stream for the operation and maintenance of Intelligent Transportation Systems is a challenge for many public agencies. The City of Tucson Traffic Engineering Department recognized that they would be unable to provide City personnel to staff the TRTCC on a regular basis. Recognizing this challenge, City Engineering staff searched for financially sustainable alternatives to a city-operated and maintained traffic management center. An FHWA-sponsored scanning tour of Traffic Management Centers provided the impetus for developing an innovative public-private partnership agreement for the operations of the TRTCC.

Under the agreement, which is similar to a 'concession' or 'franchise' agreement, the private business entity receives sole and exclusive rights to the traffic data being provided to the TRTCC. The business entity operates the center for a profit. In exchange for the use of all the traffic information in the TRTCC, the City of Tucson receives:

- Full remodeling of the computer center and Traffic Engineering Division offices;
- Flight time in MetroNetwork's airplane for City staff to observe traffic conditions and other transportation issues;
- Prime time commercial slots for peak-hour transportation announcements;
- Percentage of sales of video data;
- Special air support to transportation, law enforcement, fire and emergency storm response crews; and
- Personnel to monitor and operate the control center.

The agreement is similar to a "concession" or "franchise" contract as is commonly procured for the operation of a sports park. Under the agreement, the business entity operates the center for a profit.

11.4 Implications for Business Plan

- City of Tucson developed a 'concessionaire' agreement with MetroNetworks for the staffing and operations of the TRTCC. MetroNetworks provides operators to staff the control room of the TRCC a minimum of 6 hours a day, each weekday. MetroNetworks staff are also available during 'off-hours' for special events or coverage of major incidents. The resources of MetroNetworks, including aircraft, significantly enhance the amount and quality of traffic information that would otherwise be available.
- In addition to providing operators, MetroNetworks provides the City of Tucson with additional 'non-cash' benefits, including prime time commercial slots for peak-hour transportation announcements, flight-time in MetroNetworks aircraft, and they remodeled the TMC.

Recognizing that financial constraints would make it difficult for the City of Tucson to operate and maintain a city-owned and operated facility, The City of Tucson entered into an innovative public-private partnership agreement for the operations of the TRTCC.